controls, however ACG, GTA and GCA haplotypes emerged from three loci occurred with significantly more frequencies in patients (P< 0.001). Haplotype ACA and GTG, from the other hand, were more frequent in controls (P< 0.001). Significancies of haplotype resisted the Bonferroni correction. **Conclusion:** Our results suggest a strong genetic association of CTLA-4 genetic variants and emerged haplotypes with susceptibility to head and neck carcinoma. Also it revealed that higher incidence of CT60 A allele may have a protective role against cancer, probably by affecting sCTLA-4/mCTLA-4 isoforms ratio.

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CTLA-4 Over-Expression in Intracellular Compartments as Well as on the Surface of Lymphocytes Derived from Patients with Lung Cancer

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Background & Objective: CTLA-4 is a homodimeric glycoprotein which behaves as a negative regulator of T as well as B lymphocytes. Intra-cellular storage of CTLA-4 supports the rapid surface expression following lymphocyte re-activation. Previous investigations indicated that lymphocytes with intracellular expression of CTLA-4 show an impaired response following Ag presentation. Background & Objective: Considering immune inhibitory state in patients with cancer we aimed, in the present study, to investigate, in patients with non small lung cancer (NSCLC), the percentages of $CD4^+$T, $CD8^+$T as well as B lymphocytes expressing CTLA-4 both on the surface and in intracellular compartments. **Methods:** Twenty one new cases with NSCLC who received no prior treatment as well as sixteen sex-age matched healthy donors were recuited. Mononuclear cells were isolated by Ficoll -Hypaque density gradient centrifugation. Intracellular staining of CTLA-4 and surface staining of CD4 and CD8 as well as CD19 molecules followed by Flow cytometric analysis was used to evaluate the prevalence of the targeted cells. **Results:** In both groups CTLA-4 presence in intracellular compartments of lymphocytes was significantly higher than that expressed on the surface (P< 0.05). Compared to the controls the expression of intracellular as well as surface CTLA-4 was independently increased in lymphocytes of the patients: total T cells from the patients had significantly higher CTLA4 expression both in intracellular compartments and on the surface (Intracellular: 19.2 ±17.0 vs. 7.3 ± 12.2, Surface: 0.71 ± 0.56 vs. 0.46 ± 0.19, P< 0.05). Nearly the same results were observed for $CD4^+$, $CD8^+$ T cell subsets as well as B lymphocytes. **Conclusion:** Our data suggest that parts of lymphocyte response problems in patients with cancer may come from high storage as well as high surface expression of CTLA-4 molecule, negative regulator which suggest to be, and has recently been, targeted for immunotherapy of the cancers including NSCLC.

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Cytotoxic Effect and Inducing of Apoptosis by *Ornithogalum Caspidatum* Herb Medicine extract on WEHI-164 (Fibrosarcoma Model) in Comparison with Taxol

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